

Gravity and GNSS/Leveling data collection towards developing a regional geoid model in support of the newly established GeoNetGNSS CORS network D.A. Natsiopoulos¹, E.G. Mamagiannou¹, E.A. Tzanou³, A. Triantafyllou¹, G.S. Vergos¹, I.N. Tziavos¹, D. Ramnalis², V. Polychronos² ¹Laboratory for Gravity Field Research and Applications (GravLab), Department of Geodesy and Surveying, Aristotle University of Thessaloniki, ²GeoSense PCo, Thessaloniki, Greece ³Department of Surveying and Geoinformatics Engineering, School of Engineering, International Hellenic University, Serres, Greece













HS 2022 – "Gravity Geoid and Height Systems 2022" In Some Son Conference Center, UT Austin, September 12-14 2022, Austin-Texas-USA

•Thermi – Kato Sxolari (14 points – every 1km) •Peraia – Angelohori (10 points) • Peraia – Nea Irakleia (25 points) • Triadi to Kato Sxolari (14 points) • Peraia to Nea Michaniona and to Nea Iraklia • Nea Triglia, Nea flogita and

and orthometric heights, respectively

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Conclusions

Measurement campaigns to collect gravity and GNSS/Levelling data at selected sites around the newly established CORS stations. Densify the land gravity database given the geological complexity and topographic peculiarities of the region in order to determine a high-accuracy and resolution geoid.

All aforementioned data refer to the wider region close to POLYGYROS (mainly) and THESSALONIKI station.

Since the start of the project, 13 measurement campaigns have been carried out and 515 new gravity points with accurate position and height information have been established.

A mean measurement accuracy at the ~15-20 µGal level and ~3 cm has been achieved for the gravity measurements

REGION OF CENTRAL MACEDONIA MANAGING AUTHORITY O.P. Region of Central Macedonia

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